

REMARKS/ARGUMENTS

This amendment accompanies a Request for Continued Examination (RCE) filed concurrently herewith.

Reconsideration of this application is requested. Claims 167, 172 and 177 will be active in the application subsequent to entry of this Amendment.

This Amendment incorporates the Amendment filed June 14, 2006 which was refused entry in an Advisory Action dated June 27, 2006. This Amendment also addresses issues presented in the Advisory Action.

The Official Action of November 23, 2005 points out various concerns directed to claims 167-176. As a result of the Examiner's objections the claims have been revised and are now directed to a biocompatible silicon product comprising a drug and porous silicon, which has been obtained by heating with an oxidizing agent. *See* claims 167 and 172.

As to the amendments made to claim 167, the biocompatibility of the product is mentioned at page 32 (line 10), page 38 (lines 12 and 25), page 39 (lines 1 and 9). The semiconductor silicon product obtained by heating is mentioned at page 2 (lines 27 to 28), page 11 (lines 14 to 22), paragraph spanning pages 30 and 31. The use of an oxidizing agent is described at page 12 (lines 5 to 12).

New claim 177 is based on page 4 of the description (lines 4 to 6) in combination with page 17 (lines 11 to 13) and page 26 (lines 19 to 22).

These amendments to the claims, including cancellation of various contentious claims, are believed to advance examination and render the claims compliant with 35 USC §112, first and second paragraphs. Favorable consideration is requested.

The Advisory Action of June 27, 2006, relating to the *non-entered* Amendment of June 14, 2006, questioned basis in the original description for the terms "organic drug" and "oxidizing agent". The term "organic drug" has been revised to refer simply to "a drug" as in original claim 1. The term "oxidizing agent" is appropriate as the word "oxidant" appears in the passage at page 12, lines 5-12. Attached is a page from **Chambers Combined Dictionary Thesaurus** (ISBN number 0-550-10590-5) providing a dictionary definition of "oxidant", which shows that it is equivalent to "oxidising agent". The terminology used in amended claim 167 finds ample basis in the description of the invention for the reasons just mentioned.

The Office Action of April 27, 2006 contains a single prior art-based rejection directed to claims 167-173, 175 and 176. To the extent that the examiner's concerns may extend to the new and amended claims presented above, this rejection is traversed. The rejection is one of alleged anticipation based on WO 97/06101 (hereinafter "WO'101").

WO '101 does not describe a biocompatible mesoporous silicon product, comprising a drug located in its pores, which has been obtained by heating with an oxidizing agent. It follows that claim 167 is novel with regard to WO '101.

WO '101 describes the oxidation of porous silicon at several locations. However, it emphasizes the importance of contact between the biological environment and the semiconductor silicon (paragraph spanning pages 4 and 5 of WO '101).

The significance of interaction with semiconductor silicon is underlined by the complete removal of the mesoporous silicon in SBF, described in the paragraph spanning pages 13 and 14 of WO '101, which shows that it is the silicon, and not silicon oxide, which is reacting in the simulated biological environment.

This is further underlined by the link between bioactivity and the slight resorption of the semiconductor silicon, as opposed to silicon oxide, mentioned at page 14 lines 16 to 17; the dissolution of silicon, in simulated body fluid, resulting in a silicon oxide layer.

These elements of the disclosure, which emphasize the use of semiconducting silicon, would lead the skilled person away from the use of an oxidizing agent, that would result in oxidation of the silicon, and it follows that new claim 167 is not obvious in the light of the cited document.

CANHAM et al.
Appl. No. 09/647,599
July 14, 2006

For the above reasons it is respectfully submitted that the claims define inventive subject matter. Reconsideration and allowance of this application is solicited. Should the examiner require further information please contact the undersigned.

Respectfully submitted,

NIXON & VANDERHYE P.C.

By:



Arthur R. Crawford
Reg. No. 25,327

ARC:eaw
901 North Glebe Road, 11th Floor
Arlington, VA 22203-1808
Telephone: (703) 816-4000
Facsimile: (703) 816-4100

CHAMBERS

COMBINED
DICTIONARY
THEESAURUS

Edited by
Martin Manser
and
Megan Thomson

For
have
refer
for so

b

c

refer

Rei

com

accessi

con

Diction

suit.c

CHAMBERS
Word

author
program
new word
Typically
bring i
Chambers
any one to
specially rei
the Brit
has
database o
available
100 million

CHAMBERS

